

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An isolated nucleic acid molecule that encodes a (-)-camphene synthase and that hybridizes under stringent conditions to a probe selected from the group consisting of the complement of the portion of SEQ ID NO:3 extending from nucleotide 1560 to nucleotide 1694 and the portion of SEQ ID NO:5 extending from nucleotide 1180 to nucleotide 1302 under hybridization conditions of 3 X SSC at 65°C for 16 hours, followed by one wash in 0.5 X SSC at 55°C for 30 minutes.

2-6. (Canceled)

7. (Original) An isolated nucleic acid molecule of Claim 1 which encodes the amino acid sequence of SEQ ID NO:65.

8. (Original) An isolated nucleic acid molecule of Claim 1 ~~having~~ consisting of the sequence of SEQ ID NO:64.

9-66. (Canceled)

67. (Currently amended) A replicable expression vector comprising a nucleic acid sequence encoding a ~~monoterpene synthase selected from the group consisting of~~ (-)-camphene synthase, ~~(-)- β -phellandrene synthase, terpinolene synthase, (-)-limonene/(-)- α -pinene synthase, myrcene synthase, and (-)-limonene synthase~~ wherein the nucleic acid sequence hybridizes to the portion of SEQ ID NO:3 extending from nucleotide 1560 to nucleotide 1694 under hybridization conditions of 3 X SSC at 65°C for 16 hours, followed by one wash in 0.5 X SSC at 55°C for 30 minutes.

68-74. (Canceled)

75. (Currently amended) A host cell comprising a vector of ~~Claim 68~~ Claim 67.

76-81. (Canceled)

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82. (Currently amended) A method of enhancing the production of a ~~monoterpene synthase~~ (-)- camphene synthase in a suitable host cell comprising introducing into the host cell an expression vector of Claim 67 under conditions enabling expression of the ~~monoterpene synthase~~ (-)- camphene synthase in the host cell.

83. (Original) The method of Claim 82 wherein said host cell is a plant cell.

84. (Original) The method of Claim 83 wherein said cell is from a plant selected from the group consisting of Brassica, cotton, soybean, safflower, sunflower, coconut, palm, wheat, barley, rice, corn, oats, amaranth, pumpkin, squash, sesame, poppy, grape, mung beans, peanut, peas, beans, broad beans, chick peas, lentils, radish, alfalfa, cocoa, coffee, tree nuts, spinach, culinary herbs, berries, stone fruit and citrus.

85. (Original) The method of Claim 83 wherein said plant cell is a seed cell.

86. (Original) The method of Claim 83 wherein said plant cell is a leaf cell.

87. (Original) Seed comprising a cell produced by the method of Claim 85.

88. (Original) Seed of Claim 87 selected from the group consisting of seed of Brassica, cotton, soybean, safflower, sunflower, coconut, palm, wheat, barley, rice, corn, oats, amaranth, pumpkin, squash, sesame, poppy, grape, mung beans, peanut, peas, beans, broad beans, chick peas, lentils, radish, alfalfa, cocoa, coffee and tree nuts.

89-90. (Canceled)

91. (New) An isolated nucleic acid molecule of Claim 1 wherein the isolated nucleic acid molecule hybridizes to the complement of the portion of SEQ ID NO:3 extending from nucleotide 1560 to nucleotide 1694 under hybridization conditions of 5 X SSC at 65°C for 16 hours, followed by two washes in 0.2 X SSC at 65°C for 20 minutes per wash.

92. (New) A replicable expression vector of Claim 67 wherein the nucleic acid sequence hybridizes to the complement of the portion of SEQ ID NO:3 extending from

nucleotide 1560 to nucleotide 1694 under hybridization conditions of 5 X SSC at 65°C for 16 hours, followed by two washes in 0.2 X SSC at 65°C for 20 minutes per wash.

- 93. (New) A method of Claim 82 wherein said host cell is a prokaryotic cell.
- 94. (New) A method of Claim 82 wherein said host cell is a eukaryotic cell.
- 95. (New) A host cell of Claim 75 wherein said host cell is a prokaryotic cell.
- 96. (New) A host cell of Claim 75 wherein said host cell is a eukaryotic cell.
- 97. (New) A host cell of Claim 75 wherein said host cell is a plant cell.

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